

# Syllabus of Fall Semester, 2018

Course Number	AE25230	Course Name	ENGINEERING MATHEMATICS(II)	Curriculum Division	Required Major	Section	054
Level	2	Department	Aerospace Engineering	Credit	3	Accreditation Division	MSC
Class Hours	Mon. 13:30(75), Wed. 13:30(75)	Classroom	제8공학관(항공관)-8308 항공우주공학과 강의실	Design Credit	0	Design Division	
Lecturer	Kyunghoon Lee	Office		E-mail			
		Telephone		Office Hours			
Supervisory Lecturer	Kyunghoon Lee	Telephone		E-mail			
Prerequisite Subject	ENGINEERING MATHEMATICS(I)	Prerequisites					
Course Description	This course covers the following topics in engineering mathematics: 1. linear algebra: matrices, vectors, determinants, and linear systems 2. linear algebra: matrix eigenvalue problems 3. vector differential calculus: grad, div, and curl 4. vector integral calculus: integral theorems						
	* Students with disabilities can negotiate with the Disabled Student's Academic Support Center regarding course materials and assignments.						
	No.	Course Objectives	Education Methods	Evaluation Methods	Core Competencies		
Course Objectives, Education Methods and Evaluation Methods	1	linear algebra (matrices, vectors, and determinants) and linear systems	Lecture	Midterm Exam, Quiz	7, 8		
	2	linear algebra (matrix eigenvalue problems)	Lecture	Midterm Exam, Quiz	7, 8		
	3	vector differential calculus (gradient, divergence, and curl)	Lecture	Final Exam, Quiz	7, 8		
	4	vector integral calculus and integral theorems	Lecture	Final Exam, Quiz	7, 8		
	No.	Core Competencies				Ratio(%)	
Core Competencies and Ratio	7	an ability to identify the basic knowledge of engineering by applying it to problem solving and experimental data analysis				60	
	8	an ability to lead self-development through reflection on expertise and technical environment changes				40	

Education Methods	Lecture	Discussion	Experiment /Practice	Online	Presentation	Art/ Physical	Seminar	Research /Project	Design	Etc.
		√								
Evaluation Methods	Attendance	Midterm Exam	Final Exam	Assignments	Quiz	Presentation	Report	Practice	Etc.	Total (%)
		√	√		√					
	0	0	0		48					48
* Students with disabilities can request an extension of the exam hour, and they can take exams by getting writing assistance or by using a computer.										
Requirements for Evaluation										
Textbooks and References	Required Textbook	Erwin Kreyszig – Advanced Engineering Mathematics								
	Reference1									
	Reference2									
	Reference3									
	Prescribed Textbook									
	Web Page									
Weekly Schedule of Classes										
Week No.	Topics and Activities					Assignments and Other Instructions				
WEEK1	Chap 7 Linear Algebra					7.1, 7.2, 7.3(1/2)				
WEEK2	Chap 7 Linear Algebra					7.3(1/2), 7.4, 7.5				
WEEK3	Chap 7 Linear Algebra					7.7, 7.8, 7.9(1/2)				
WEEK4	Chap 8 Linear Algebra					7.9(1/2), 8.1, 8.2				
WEEK5	Chap 8 Linear Algebra					8.3, 8.4, 9.1(1/2)				
WEEK6	Chap 9. Vector Differential Calculus					9.1(1/2), 9.2, 9.3				
WEEK7	Midterm Exam									
WEEK8	Chap 9. Vector Differential Calculus					9.4, 9.5, 9.6(1/2)				
WEEK9	Chap 9. Vector Differential Calculus					9.6(1/2), 9.7, 9.8				
WEEK10	Chap 9. Vector Differential Calculus					9.9, 10.1, 10.2(1/2)				
WEEK11	Chap 10. Vector Integral Calculus					10.2(1/2), 10.3, 10.4				
WEEK12	Chap 10. Vector Integral Calculus					10.5, 10.6, 10.7(1/2)				
WEEK13	Chap 10. Vector Integral Calculus					10.7(1/2), 10.8, 10.9				
WEEK14	Makeup/Review									
WEEK15	Final Exam									